ABSTRACT OF THE DISCLOSURE

A family of medium-access (MAC) collision-avoidance receiver-initiated channel-hopping (RICH) protocols which do not rely on carrier-sensing, or unique codes to each node within the network. The RICH protocol requires that each network nodes adhere to a common channel-hopping sequence, and that nodes that are not in a state of sending or receiving data will listen on the common channel hop. To send data nodes enter into a receiver-initiated dialogue over the channel-hop at the time at which a data transmission is needed. Nodes which succeed in performing the collision-avoidance handshake remain in the same channel-hop for the remainder of the data transfer, while the remaining nodes continue with the common channel hopping sequence. The described RICH protocols are capable of providing collision-free operation even in the presence of hidden terminals.